

low-middle income, 16% to upper-middle income, and 2% to upper-income countries. The main purposes of travel were vacation/leisure (63%), business (20%), extreme-adventure travel (14%), education/research (11%), visiting friends and relatives (10%), non-medical service work (6%), and providing medical care (4%). Two percent of travelers were attending large gatherings. Ten percent were children less than 18 years of age; 4% were less than 5 years of age; and 6% of travelers were over 65 years of age. Sixty-four percent of travelers listed a medical condition; 70% were on daily medication. Ten percent of travelers reported a pre-existing neurologic or psychiatric condition; 7% reported a pre-existing intestinal condition; 2.5% were immunocompromised; and 0.4% of female travelers were pregnant or breastfeeding. We analyzed vaccine usage for prevention of hepatitis A, yellow fever, and influenza. Eightyone percent of travelers received immunization against hepatitis A; 7% were considered preimmune. Of the 38% of travelers visiting countries that included areas endemic for yellow fever, 67% received yellow fever immunization; 18% were considered pre-immune. Yellow fever vaccine was administered to 407 travelers 60 years of age or older. Forty percent of international travelers received influenza vaccine; 30% were considered pre-immune. Of the 2082 travelers traveling to countries that included areas endemic for malaria, 65% received malaria chemoprophylaxis. Of these, 66% received prescriptions for atovaquone-proguanil, 3.5% received doxycycline, and 14% received mefloquine.

Conclusion: These data suggest that international travelers range widely in age and frequently have co-morbid medical conditions that heighten the need for pre-travel advice.

doi:10.1016/j.ijid.2010.02.1776

32.005

Use and sources of medical information among departing international travelers to low and middle income countries at Logan International Airport-Boston, MA, 2009

R. LaRocque¹, S. Rao¹, T. Lawton¹, A. Tsibris¹, D. Schoenfeld¹, A. Barry², E. Yanni³, N. Marano⁴, N. Gallagher⁴, C. Marano⁴, G. Brunette⁴, E. Ryan^{1,*}

¹ Massachusetts General Hospital, Boston, MA, USA

² Communicable Disease Control, Boston Public Health Commission, Boston, MA, USA

³ Centers for Disease Control and Prevention, Atlanta, GA, USA

⁴ Centers for Disease Control & Prevention, Atlanta, GA, USA

Background: International travelers play a significant role in the global spread of infectious diseases, especially travelers to low and middle-income countries (LMICs). Despite this, limited data exist on sources of health information used by these travelers.

Methods: To address this, we surveyed 1,254 international travelers who reside in the U.S. and were departing from Boston-Logan International Airport in 2009.

and 30% were traveling for more than 2 weeks. Purposes of travel included vacation/holiday (63%), business/work (11%), educational/cultural exchange (6%), performing volunteer work (10%), adventuring (7%), attending a large gathering (2%), providing medical care (3%), receiving medical care (0.5%), and adoption (0.3%). Nineteen percent were traveling as part of a family that included children, and 104 (16%) were born overseas and returning to visit friends or relatives (VFRs).

Among travelers to LMICs, 50% did not seek any medical advice and 74% did not see a healthcare professional prior to travel. For travelers who did not seek medical advice, the most common reasons cited were lack of concern about health issues (60%), not thinking of it (35%), not having enough time (7%), inconvenience (3%), and expense (2%).

A significantly lower percentage of VFRs sought any-source medical advice prior to travel compared with other travelers (37% vs 52%; $p=0.004$). VFRs were less likely than other travelers to use the Internet (12% vs 24%; $p=0.004$), and less likely to see a specialist practitioner prior to travel (2% vs. 15%; $P<0.001$). VFRs and other travelers were equally likely to seek advice from primary care providers prior to travel (21% vs. 17%; $p=0.32$).

Conclusion: Our results suggest that half of travelers to LMICs do not seek any healthcare advice prior to their trip, and that most of such travelers do not seek advice from a health care professional. The most common reason these individuals cite for not seeking medical advice is lack of concern about health problems related to travel. These results suggest a need for health outreach and education programs targeting travelers to LMICs.

doi:10.1016/j.ijid.2010.02.1777

32.006

Transporting a critically ill patient from the Canadian north - lessons learned from almost a decade of SkyService Medevac experience

G. Samoukovic^{1,*}, E. Farias², T. Malas², H. Petrie³, M. Churchill Smith²

¹ McGill University Health Sciences Centre, H3A 1A1, QC, Canada

² McGill University Health Sciences Centre, Montreal, QC, Canada

³ SkyService Medevac, Montreal, QC, Canada

Background: Canadian North is vast territorially, yet medical resources are lacking manpower, expertise, equipment and facilities. Transport of seriously ill patients is, hence, a common necessity frequently requiring both ground and air transportation. SkyService Medevac is the major medevac air-transporter in Canada and one of the global leaders in the field.

Methods: We reviewed the data related to a total of 988 cases of medical evacuations from 2002 to 2008. The data reveals information regarding demographics, pathology prompting the transport as well as medical expertise required for the transport. We pay special attention to the

parameters concerning the neonatal and pediatric population.

Results: Of the 988 cases (Table 1) of medical evacuation from Baffin Regional Hospital in Iqaluit, Nunavut, between 2002 and 2008, pediatric population comprised 35.6%, majority of whom were neonates. Almost 17% of the patients were critically ill, intubated and required intensive-care hospitalization. The most common pathologies prompting evacuation were those involving cardiovascular and respiratory systems. There were no in-flight mortalities, while invasive interventions by the medical staff were extremely rare after departure.

Year	Total Pts	Vented	Non Vented	Age <1	Age 1-18	Age >18
2002	111	24	87	19	20	69
2003	169	44	124	40	20	96
2004	100	22	18	21	9	70
2005	104	22	82	19	20	63
2006	119	19	96	29	15	75
2007	164	21	143	25	26	113
2008	221	35	187	52	19	150
Total	988	165	823	205	147	636

Conclusion: Safe air transport from any destination is feasible, but required detailed planning, pre-flight preparation and expertise. SkyService Medevac data demonstrate that transport from Canadian North is not only safe, but also economically advantageous.

doi:10.1016/j.ijid.2010.02.1778

32.007

Incidence and impact of travelers' diarrhea among foreign backpackers in Southeast Asia

W. Piyaphanee*, T. Kusolsuk, C. Kittitrakul, W. Suttithum, T. Ponam, P. Wilairatana

Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand

Background: Travelers' diarrhea is the most common disease reported among travelers visiting developing countries, including Southeast Asia, which is visited by large numbers of backpackers each year. Current knowledge of this particular group is limited. This study aimed to determine the incidence and impact of travelers' diarrhea among this group. The secondary objective was to assess their attitudes and practices towards the risk of travelers' diarrhea.

Methods: Foreign backpackers in Bangkok, Thailand, were invited to fill out a study questionnaire, in which they were queried about their demographic background, travel characteristics, pre-travel preparations, and actual practices related to the risk of travelers' diarrhea. For backpackers who had experienced diarrhea, the details and impact of each diarrheal episode were also assessed.

Results: In the period April-May 2009, 408 completed questionnaires were collected and analyzed. Sixty percent of participants were male; overall, the median age was 26 years. Nearly all backpackers (96.8%) came from developed countries. Their main reason for travel was tourism (88%). The median stay was 30 days. More than half the backpackers (56%) carried some antidiarrheal medication.

Antimotility drugs were the most common medication carried by backpackers, followed by oral rehydration salts (ORS), and antibiotics. Although 61% of participants had received information about travelers' diarrhea before the current trip, their practices were far from ideal; 95.7% had bought food from street vendors, 92.5% had drunk beverages with ice-cubes, 34.6% had eaten leftover food from a previous meal, and 27.5% had drunk tap water. Only 23% of backpackers always washed their hands before eating food. In this study, 31% (130/408) of backpackers had experienced diarrhea during their trip. Most cases (88.4%) were mild and recovered spontaneously. However, 8.5% of cases required a visit to a doctor, and 3.1% needed hospitalization; 16.28% had to delay or cancel their trip due to a diarrheal attack.

Conclusion: About one third of the foreign backpackers in Southeast Asia had experienced diarrhea during their trip. Their current state of awareness and practices related to the risk of travelers' diarrhea were inadequate and should be improved.

doi:10.1016/j.ijid.2010.02.1779

32.008

The health surveillance stations at points of entry in Brazil under the revised International Health Regulations - IHR/2005

C. Gregis*, F.V. Pascalicchio

National Health Surveillance Agency (Anvisa), BRASILIA, DF, Brazil

Background: The recent revision and update of the International Health Regulations, IHR (2005), provides a new approach to deal with international reaction to public health events and to ensure global health security. Therefore, it is a priority to build, strengthen and to mobilize the necessary resources. The National IHR Focal Point must notify within 24 hours all events which may constitute a public health emergency of international concern. This study aims to assess the effectiveness of Health Surveillance Units at points of entry in Brazil regarding health control of international travelers and epidemiological investigation conducted in accordance with the IHR (2005).

Methods: It was analyzed the public health events notified to the Health Surveillance Units at points of entry that occurred in the first year after IHR (2005) entry into force in accordance with the attributes of usefulness, sensitivity, timeliness, and stability, and their relation with Malaria imported cases into Brazil at the same period.

Results: Since 1975, Brazil has a broad national epidemiologic surveillance system to reporting infectious and non-infectious diseases and that enables the assessment and control of these events timely. Until 2007, the main activity at points of entry was the supply of the yellow fever vaccine and its verification when an international traveler was arriving from an affected country. At the first year, 26 suspected events of public health concern were reported by points of entry to central office after 4.2 days average, such as unknown death (6 events), chickenpox (5), malaria (4), tuberculosis (2), outbreaks of foodborne illness (2), and one of rubella, hanseniasis, acute fever illness, hepatitis, norovirus, conjunctivitis and accident. At the same time,